

REMARKS

Claims 1-8, 10, 11, and 13-20 will be pending upon entry of the present amendment. Claims 8, 13, and 14 are amended and claim 21 is cancelled. No new matter has been added with the present amendment.

Applicant thanks the Examiner for indicating the allowability of the subject matter of claims 5, 13, and 14.

Objections to Claims

The preambles of claims 13 and 14 were objected to because they did not conform to the preamble of their base claim, and have been amended accordingly.

Summary of Rejections Under 35 U.S.C. §§ 102 and 103

Claims 8 and 21 are rejected under 35 U.S.C. §102(b) as being anticipated by Whalmark (U.S. Patent 3,233,555); claims 1, 7, 16, and 18-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Whalmark; claims 2 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Whalmark, in view of Bratt (U.S. Patent 4,991,492); claims 3, 4, 6, 15, and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Whalmark, in view of Forster (U.S. Patent 4,893,549); claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Whalmark in view Schauer (U.S. Patent 3,382,813); claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Whalmark in view of Schauer and Forster.

In the discussion that follows, when a specific passage of a U.S. patent is cited, it will be pinpointed by a column number separated from a line number by a colon, *e.g.*, 4:22, indicating column 4, line 22.

Response to Rejections Under 35 U.S.C. § 102

Claim 8 has been amended to incorporate the limitations of claim 21, and recites, in part, “a back plate having a concave surface in the shape of a section of a cylinder … and first and second reaction plates coupled to the back plate, each having a convex reaction surface in the shape of a section of a cylinder, concentric to, substantially facing, and spaced a selected distance from, the concave surface of the back plate.” Wahlmark fails to anticipate these

limitations of claim 8. The Office Action points to the upper portion of the channel 64 as corresponding to the convex reaction surface of claim 8, and argues that these surfaces are in the form of sections of a cylinder. Applicant respectfully disagrees. One of ordinary skill in the art would understand that, when viewed in a plane parallel to its axis, a cylindrical shape will have straight, parallel sides. It follows then that a section of a plane will have at least one straight side parallel to the axis. As viewed in Figure 2, Wahlmark's base surface 72 and channel 64 (at reference character 56 of Figure 2) can be seen to be, respectively, concave and convex, and to be concentric to each other, around a common axis 55 lying perpendicular to the view of Figure 2. Thus, if the upper portion of the channel 64 can be considered to correspond to the reaction surface of claim 8 (which Applicant disputes, as explained in the response of October 2, 2007), the upper portion must have a straight side when viewed in a plane lying parallel to the axis 56, in order to anticipate claim 8. Wahlmark's Figure 3 provides such a view. Referring now to the channels 64, it can be seen that they do not have straight sides, but instead have concave arcuate sides, as viewed in Figure 3. Accordingly, they cannot be described as sections of a cylinder, and therefore fail to anticipate claim 8, which is thus allowable.

Response to Rejections Under 35 U.S.C. § 103

Claim 1 recites, in part, “a back plate ...; a plurality of reaction plates rigidly coupled to the back plate; a valve plate ...; and a plurality of hold-down pistons positioned in respective hold-down cylinders formed in the valve plate, each of the hold-down pistons configured to be biased, by pressurized fluid in the respective hold-down cylinder, against a surface of one of the reaction plates.” Wahlmark fails to teach or suggest these limitations of claim 1. The Examiner acknowledges that Wahlmark does not teach the pistons of claim 1, but argues that it would have been an obvious design choice to modify Wahlmark's ball bearings to “make these ball bearings pistons, since such a modification would have involved a mere change in the shape of the component,” citing *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (1966) in support of the argument. *Dailey* involves a patent application in which a claimed disposable plastic container is found to be obvious in view of a disposable plastic container in the prior art that has a different shape but that is functionally identical to the claimed container. MPEP § 2144.04 IV B clarifies the grounds for rejection, stating that the difference in shape “was a

matter of choice which a person of ordinary skill in the art would have found obvious *absent persuasive evidence that the particular configuration of the claimed container was significant.*"

In the present case, the Examiner argues that the difference between a ball bearing and a piston is merely a matter of a change of shape. Applicant strongly disagrees. Ball bearings are used primarily to reduce friction in lateral movement between two surfaces, while a piston functions primarily to apply a linear force. They are functionally distinct from each other, and are not interchangeable. Ball bearings are, by definition, spherical. Unlike *Dailey's* plastic containers the spherical shape of ball bearings is essential to their function. If their shape is changed, they are no longer ball bearings, but are now something else. They cannot function in a manner that is identical to ball bearings. Changing Wahlmark's ball bearings to pistons cannot be done without also changing their principle of operation from that of ball bearings to that of pistons (see MPEP § 2143.01 VI. ("If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious")). Finally, the *KSR* court notes that "a court [or Examiner] must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, at 1741, 82 U.S.P.Q.2d 1385 (2007). In the present case, the Examiner's proposed improvement is more than the predictable use of Wahlmark's ball bearings according to their established functions, and therefore does not support a *prima facie* case of obviousness. Claim 1 is therefore allowable over Wahlmark.

With regard to claim 16, which recites that "each of the plurality of hold-down pistons comprises a face that conforms to the surface of the respective reaction plate," Wahlmark cannot teach or suggest this limitation. Wahlmark's ball bearings must be spherical to operate according to the widely known and understood function of ball bearings. If they were made to conform to the surface of the reaction plates, they would be incapable of rolling properly, and would be rendered unsatisfactory for their intended purpose (see MPEP § 2143.01 V. ("The proposed modification cannot render the prior art unsatisfactory for its intended purpose")). Accordingly, claim 16 is not obvious in view of Wahlmark, but is allowable thereover.

With regard to claim 18, which recites that "at least one of the plurality of hold-down pistons has a diameter that is smaller than another of the hold-down pistons," the Examiner

argues that it “would have been an obvious matter of design choice to make the hold down pistons different diameters in order to have them distribute more or less pressure to the system.” However, there is no support for the basis of this conclusory statement. The Examiner fails to offer any suggestion as to why Wahlmark would find it necessary to have them distribute more or less pressure in the first place. Without such a suggestion, a change in diameter would likely have an adverse effect on the function of Wahlmark’s system, and would therefore be contrary to the teachings of Wahlmark. Accordingly, claim 18 is allowable over Wahlmark.

Claims 3, 4, 6, 15, and 17 are rejected over a combination of Forster with Wahlmark. In Applicant’s response of October 2, 2007, Applicant provided a thorough review of the reasons why a combination of Forster with Wahlmark cannot support a *prima facie* case of obviousness of claim 1, from which each of claims 3, 4, 6, 15, and 17 depends. These reasons included lack of motivation for combination, the combination would render Wahlmark unsatisfactory for its intended purpose, and even if such a combination were made, the resulting combination, in the absence of impermissible hindsight, would not meet the limitations of the claims. Claim 1 remains as previously presented, and the present rejection of claim 1, even if it were valid, does not present new art to support the rejection or to overcome the issues raised in Applicant’s previous arguments. The recent Office Action does not address any of those arguments, so, in the interest of brevity, Applicant incorporates those earlier arguments by reference in support of the allowability of claims 3, 4, 6, 15, and 17.

In rejecting claim 10, the Examiner relies on the reasoning provided in support of the rejection of claim 1 over Wahlmark, combined with teachings from Schauer. The inadequacy of Wahlmark to support the rejection of claim 1 has been discussed, and claim 10 is allowable for similar reasons. Additionally, Schauer cannot provide the teaching of the back plate of claim 10 because Schauer does not employ a back plate. The Office Action points to element 35 as corresponding to the valve plate of claim 10, and to element 13 as corresponding to the back plate of claim 10. However, these elements are merely different parts of the same component, *i.e.*, the “port plate 35 [is] formed on the inner surface of the valve member 13” (Schauer 3:63-64.) For at least these reasons, claim 10 is allowable over the combination of Wahlmark and Schauer.

Conclusion

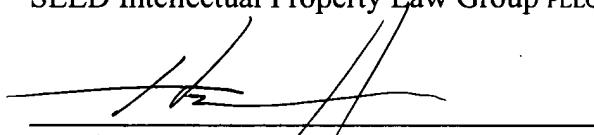
Overall, the cited references do not singly, or in any motivated combination, teach or suggest the claimed features of the embodiments recited in independent claims 1, 8, and 10, and thus such claims are allowable. Applicant's decision not to separately argue the allowability of many of the dependent claims is not to be construed as an admission that those claims would not be allowable but for their dependence on allowable base claims, and Applicant reserves the right to present such arguments as may become necessary in the future. If the undersigned representative has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found.

In light of the above amendments and remarks, Applicant respectfully submits that all pending claims are allowable, and therefore respectfully requests that the Examiner reconsider this application and timely allow all pending claims. Examiner Bertheaud is encouraged to contact Mr. Bennett by telephone at (206) 694-4848 to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, he is encouraged to contact Mr. Bennett by telephone to expeditiously correct such informalities.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

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